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SEMIANNUAL REPORT TO CONGRESS ON THE EFFECTIVENESS OF  
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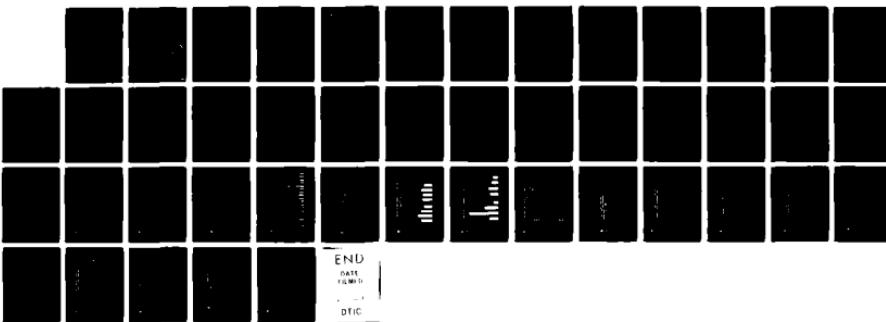
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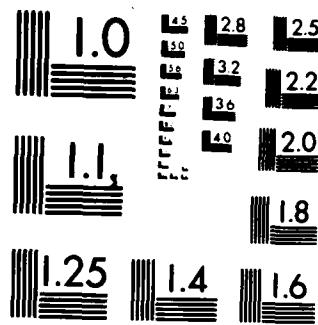
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U.S. Department  
of Transportation  
Federal Aviation  
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# Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program

AD A 128 687

July 1 - December 31, 1982



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April 1983

Report of the Administrator  
of the Federal Aviation Administration  
to the United States Congress  
pursuant to Section 315 (a)  
of the Federal Aviation Act  
of 1958

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## Technical Report Documentation Page

1. Report No. DOT/FAA-ACS-82-17	2. Government Accession No. AD-A12 8687	3. Recipient's Catalog No.	
4. Title and Subtitle Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program		5. Report Date April 7, 1983	
7. Author(s) Aviation Security Division		6. Performing Organization Code	
9. Performing Organization Name and Address DOT/Federal Aviation Administration Office of Civil Aviation Security 800 Independence Avenue, SW. Washington, D.C. 20591		10. Work Unit No. (TRAIS)	
12. Sponsoring Agency Name and Address DOT/Federal Aviation Administration Office of Civil Aviation Security 800 Independence Avenue, SW. Washington, D.C. 20591		11. Contract or Grant No.	
15. Supplementary Notes This report is required by Section 315(a) of the Federal Aviation Act of 1958.		13. Type of Report and Period Covered Recurring Report July 1 - December 31, 1982	
16. Abstract The report includes an analysis of the current threat against civil aviation along with information regarding hijacking attempts, security incidents, bomb threats, and passenger screening activity. It also summarizes ongoing activities to assure adequate protection of civil air commerce against hijacking/sabotage and related crimes, and other aspects of the Civil Aviation Security Program.			
17. Key Words		18. Distribution Statement	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 44	22. Price



US Department  
of Transportation

Federal Aviation  
Administration

April 7, 1983

The Honorable George Bush  
President of the Senate  
Washington, D.C. 20510

Office of the Administrator

800 Independence Ave., S.W.  
Washington, D.C. 20591

Dear Mr. President:

I am pleased to forward the Federal Aviation Administration's Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program. It covers the period July 1 through December 31, 1982, and is submitted in accordance with section 315(a) of the Federal Aviation Act.

The close of this reporting period marks the completion of the first decade of the strengthened security measures instituted at airports in January 1973. The record over that period attests to the success of these security measures and the entire Civil Aviation Security Program. During the past 10 years, over 4.4 billion persons were processed through the security screening systems at airports, and over 5.8 billion pieces of carry-on items were inspected. In the course of this screening, over 26,000 firearms were detected resulting in more than 10,000 related arrests. In addition, it is estimated that 104 aircraft hijackings may have been prevented by the security measures in effect. Finally, and probably the most significant indicator of the success of the program is the fact that the annual average of air carrier hijackings for the 10 years, during which the system has been in operation, is about seven. This equates to approximately one-fourth of the annual average for the 5 years preceding 1973.

While the Civil Aviation Security Program has been highly successful, this success has been marred somewhat by a recent explosion aboard a U.S. air carrier aircraft and by the onset of a series of successful hijackings to Cuba by individuals who used the threat of igniting real or alleged flammable liquids as their weapon. Fortunately, extensive efforts of both Government and industry to curtail these types of incidents have proved to be effective. These efforts, together with the various programs and projects described in this report, are intended to improve the existing safety and cost effectiveness of the U.S. security system and to ensure that, both in the United States and throughout the world, air travelers are provided the highest level of security necessary to meet all situations.

A copy of this report has been provided to the Speaker of the House of Representatives.

Sincerely,

  
J. Lynn Helms  
Administrator

Enclosure

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U.S. Department  
of Transportation

Federal Aviation  
Administration

Office of the Administrator

800 Independence Ave., S.W.  
Washington, D.C. 20591

April 7, 1983

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Speaker of the House of Representatives  
Washington, D.C. 20515

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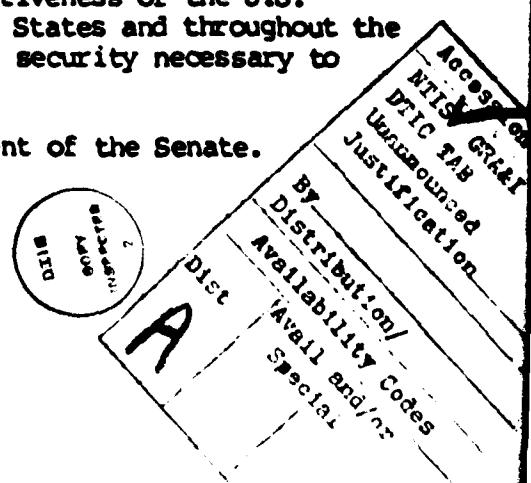
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Enclosure



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I. EXECUTIVE HIGHLIGHTS

1. THIS REPORT COVERS THE PERIOD JULY-DECEMBER 1982 AND MARKS THE COMPLETION OF 10 YEARS OF PROGRAM OPERATION.
2. U.S. SECURITY REQUIREMENTS COVER OVER 250 U.S. AND FOREIGN AIRLINES OPERATING OVER 14,600 FLIGHTS DAILY FROM OVER 675 U.S. AND FOREIGN AIRPORTS.
3. OVER 310 MILLION PERSONS WERE PROCESSED THROUGH U.S. PASSENGER CHECKPOINTS. ABOUT 1,390 FIREARMS WERE DETECTED WITH OVER 660 RELATED ARRESTS. THIS IS A 4 PERCENT INCREASE IN PERSONS SCREENED AND 26 PERCENT INCREASE IN FIREARMS DETECTED OVER THE AVERAGE FOR THE EIGHT PRECEDING REPORTING PERIODS.
4. WORLDWIDE, 13 HIJACKINGS OCCURRED (5 SUCCESSFUL) AGAINST SCHEDULED AIR CARRIERS. FOUR WERE AGAINST U.S. AIRLINES (1 SUCCESSFUL).
5. OF THE 9 FOREIGN AIR CARRIER HIJACKINGS, 5 OCCURRED ON DOMESTIC FLIGHTS.
6. THERE WAS ONE FOREIGN BUT NO U.S. GENERAL AVIATION AIRCRAFT HIJACKED.
7. REAL OR CLAIMED FLAMMABLE LIQUID HAS BEEN USED AS A WEAPON IN EVERY U.S. AIRCRAFT HIJACKED TO CUBA SINCE MID-AUGUST 1980.
8. CIVIL AVIATION REMAINS VULNERABLE TO TERRORIST ACTS. AREAS OF GREATEST DANGER CONTINUE TO BE EUROPE, THE MIDDLE EAST, AND CENTRAL AMERICA. IN THE UNITED STATES, ANTI-CASTRO AND PUERTO RICAN NATIONALIST GROUPS CONTINUE TO POSE A THREAT.
9. BOMB THREATS AGAINST AIRCRAFT AND AIRPORTS TOTALED 497. THIS IS LESS THAN ANY OTHER HALF-YEAR PERIOD SINCE 1970.
10. WORLDWIDE CRIMINAL ACTS AGAINST CIVIL AVIATION INCLUDED 14 HIJACKINGS, 15 EXPLOSIONS, AND 7 EXPLOSIVE DEVICES DISCOVERED.
11. CRIMINAL ACTS AGAINST CIVIL AVIATION CAUSED 14 DEATHS AND 160 INJURIES (1 DEATH AND 23 INJURIES IN THE UNITED STATES OR ABOARD U.S. AIRCRAFT OUTSIDE THE UNITED STATES).

12. INVESTIGATIONS OF ALLEGED SECURITY VIOLATIONS BY AIR CARRIERS, AIRPORTS, AND INDIVIDUALS TOTALED 1,380.
13. OF THE 1,380 ALLEGED SECURITY VIOLATIONS, 51 RESULTED IN CIVIL PENALTIES TOTALING \$15,440.
14. PRINCIPAL GOVERNMENT/INDUSTRY ACTIONS DURING THE REPORTING PERIOD INCLUDED:
  - A. OVER 60 COUNTRIES WERE REPRESENTED AT THE THIRD INTERNATIONAL CIVIL AVIATION SECURITY CONFERENCE HELD IN WASHINGTON, D.C.
  - B. ALTERNATIVE LAW ENFORCEMENT RESPONSE PROCEDURES HAVE BEEN APPROVED FOR MORE THAN 240 AIRPORTS.
  - C. THE REFINED AIRPORT LAW ENFORCEMENT REQUIREMENTS HAVE RESULTED IN INDUSTRY SAVINGS ESTIMATED AT \$14 MILLION ANNUALLY.
  - D. PROGRAM INITIATED TO REDUCE THE NUMBER OF INSTRUCTIONAL SIGNS AT AIRPORTS.
  - E. LEGISLATION AUTHORIZES FUNDS FOR FAA TO FINANCE EXPLOSIVE DETECTION K-9 TEAM PROGRAM.
  - F. EVALUATION OF A NEW COMPUTER PROGRAM FOR THE X-RAY ABSORPTION SYSTEM DEVELOPED TO DETECT BOMBS IN CHECKED BAGGAGE INDICATES THAT IT HAS IMPROVED THE SYSTEMS PERFORMANCE.
  - G. DEVELOPMENTAL TESTING OF THERMAL NEUTRON ACTIVATION SYSTEM INDICATES IT MAY BE EFFECTIVE IN THE DETECTION OF EXPLOSIVES IN AIR CARGO AND CHECKED BAGGAGE.
  - H. OTHER RESEARCH AND DEVELOPMENT PROJECTS TO IMPROVE EXPLOSIVE DETECTION CAPABILITIES WERE CONDUCTED ON SCHEDULE.

## II. INTRODUCTION

This is the 17th Semiannual Report to Congress on the Effectiveness of the U.S. Civil Aviation Security Program. It covers the period July 1 - December 31, 1982, and is submitted in accordance with section 315(a) of the Federal Aviation Act.

## III. U.S. AIRCRAFT HIJACKINGS

For the purpose of differentiating between air carrier and general aviation aircraft hijackings, all hijackings of "certificate holder" aircraft are considered air carrier hijackings. Federal Aviation Regulations (FAR) Part 108 defines "certificate holder" as a person holding a Federal Aviation Administration (FAA) operating certificate when that person engages in scheduled passenger or public charter passenger operations or both.

During the second half of 1982, there were four U.S. air carrier aircraft hijacked. One of these hijackings was successful and ended in Cuba. Of the nine air carrier hijackings carried out in 1982, all three of the successful attempts were perpetrated by Spanish-speaking males using bottles of flammable liquid as their weapons. This same method of threat has been used by the hijackers in every successful hijacking of aircraft to Cuba since August 13, 1980. While the frequency of this type of hijacking attempt has significantly diminished since 1980, the degree of success experienced by hijackers using flammable liquids as their weapon continues to be a matter of concern. Efforts are continuing to develop procedures, including education of passenger screening personnel, to prevent passengers from carrying flammable liquids aboard aircraft.

There were no U.S. general aviation aircraft hijacked during this reporting period.

The following is a summary of each of the four U.S. air carrier aircraft hijackings which occurred during the second half of 1982:

(See Exhibits 1, 2, and 3)

- o July 22 - A Marco Island Airways Martin 404 aircraft, flying as Air Florida Flight 39, was hijacked by two Latin males while en route from Miami to Key West, Florida. Carrying plastic bottles containing liquid which smelled like gasoline, the men shouted in Spanish that they wanted to be flown to Cuba. They poured the liquid on the cabin floor and seats and attempted to pour some on a flight attendant who fled into the cockpit. The pilot was informed and the aircraft was flown to Cuba where the hijackers were taken into custody by Cuban authorities. While en route to Cuba, one of the hijackers periodically poured additional amounts of the liquid on the floor and seats and, on one occasion, on a male passenger, causing his skin to blister. Additionally, this

hijacker attempted to light his cigarette lighter two or three times. No flame resulted, but sparks were observed.

- o August 16 - After the other passengers had deplaned from a Dolphin Airways Embraer EMB-110 Bandeirante aircraft at West Palm Beach, Florida, a male passenger told the pilot and a deadheading copilot that he had a bomb under his shirt and demanded to be flown to Cuba. The deadheading copilot deplaned, and the pilot unsuccessfully tried to convince the man to deplane. The pilot then deplaned, leaving the man alone aboard the aircraft. A deputy sheriff negotiated with the hijacker and persuaded him to remove the object, which he claimed was a bomb, from under his shirt. The object was then taken away from the hijacker, and he was overpowered and taken into custody by law enforcement personnel. The object was determined to be a man's shaving kit. No explosives were located.
- o October 27 - Brandishing a pocketknife, a lone male forced his way past airline employees and boarded a Trans World Airlines L-1011 aircraft as it was preparing to depart Los Angeles, California, for St. Louis, Missouri. Once aboard, he tried and failed to gain access to the cockpit. He talked to the flightcrew via the aircraft's internal telephone system, insisting that they take off. He did not indicate a destination. A law enforcement officer traveling as a passenger persuaded the hijacker to open an emergency door to reduce the heat and to allow more fresh air into the aircraft. As the hijacker was looking out of the open door, the law enforcement officer pushed him and caused him to fall through the doorway to the ground. He was taken into custody by law enforcement officials.
- o December 30 - While en route from Chicago, Illinois, to Pittsburgh, Pennsylvania, on a United Airlines B-727 aircraft, a lone male claimed to have an explosive device which he would detonate if the captain did not follow instructions. He displayed a flight bag with an electrical cord extending from it and demanded to be flown to Washington, D.C. He agreed to land at Pittsburgh when a crewmember convinced him the plane did not have sufficient fuel to divert from its original destination. After landing, the passengers and flight attendants disembarked. The flightcrew also deplaned after advising law enforcement authorities of the situation. The hijacker, then, was alone on the aircraft. Police boarded the aircraft and, after brief negotiations, the hijacker surrendered and was taken into custody. The flight bag was examined and no explosives were found.

While the number cannot be determined with certainty, the FAA has attempted to identify, record, and report incidents in which it appeared that individuals intended to hijack an aircraft or commit other crimes against civil aviation but were prevented from doing so by airline and airport security measures in effect. As noted elsewhere in this report, 1,390 firearms were detected at screening

points under suspicious circumstances during this reporting period. In some of these instances, the persons carrying the firearms may have intended to hijack an aircraft; however, sufficient additional data were not developed to support this determination. During the second half of 1982, there were three incidents, however, where the facts tend to support that possibility. This raises the number of hijackings or related crimes believed prevented since 1973 to 104. Each of the three incidents is summarized below:

(See Exhibit 4)

- o July 16 - In the public lobby of an airport terminal, a man took an insurance saleswoman hostage by putting an arm around her neck and pointing a knife at her throat. Holding her in this manner, he forced his way through a passenger screening checkpoint. He demanded the pistol of a law enforcement officer at the checkpoint and an aircraft to fly him to Japan. The officer refused to give up his weapon but said would try to get the aircraft. The officer called the local police who responded to the scene. The man, with his hostage, proceeded to a boarding gate area where, after a period of negotiation, he was persuaded to release his hold on the hostage. The woman then ran to the rear of a ticket counter where a police officer was hiding. The man ran after her and, upon seeing the police officer, attempted to attack him with the knife. The officer shot the man and he was taken into custody. He has been charged with attempted murder and kidnapping.
- o October 13 - During the security screening process, a man activated the walk-through weapon detector. The procedure was conducted four times and the detector activated each time. The man was physically searched, and a pistol wrapped in aluminum foil and electrical tape was found hidden under the belt of the man's pants at the small of his back. He was cited for possession of a concealed weapon and was transported to a local detention facility.
- o November 30 - At an airport security screening checkpoint, screening personnel noticed a man watching the X-ray system operation. He was told that he would have to go through the screening process or leave the area. He submitted a backpack and a suitcase for screening through the X-ray system. The X-ray operator noted what appeared to be bomb components in the suitcase and a physical search was conducted. This search revealed a component cord of wires about 7 feet long with one of the wires attached to a battery which was inside a boot. There was no matching boot in the suitcase. The suitcase also contained a pocketwatch, a mousetrap with wire attached to either end of the spring-controlled sections, and a clothespin which had nails through the tip of each end allowing the nails to touch when the pin was closed. When asked on which airline he intended to fly, the man said he did not intend to fly and was just looking for a restroom and lockers. When the screening supervisor turned to call the police, the man picked up his

bags and left the area. The terminal was searched, but the man was not located.

#### IV. FOREIGN HIJACKINGS

Between July 1 and December 31, 1982, there were 10 foreign aircraft hijacked. This represents a 17 percent decrease from the number of hijackings which occurred in the first half of 1982. While this represents an encouraging period-to-period reduction, it is still an above average number of hijackings for a half-year period. Nine of the hijackings were against scheduled air carrier operations and one was a general aviation aircraft. Five of the hijackings occurred while the aircraft involved were on domestic flights within the country of registry. Four of the air carrier hijackings were successful and the one general aviation hijacking was unsuccessful. In six of the nine air carrier hijackings, the perpetrators were known to have had real firearms, knives, and/or explosives. In four of the six cases, available information indicates that the weapons were introduced through the passenger boarding process. It is believed that had there been a fully efficient passenger and carry-on baggage screening system in place at the airports where the hijackers boarded, the weapons would have been intercepted.

(See Exhibit 2)

#### V. AIRCRAFT/AIRPORT SABOTAGE

Six significant incidents involving actual explosive or incendiary devices occurred aboard U.S. aircraft or at U.S. airports during the reporting period. The circumstances of each of these incidents are summarized below:

(See Exhibit 5)

- July 10 - In an anonymous telephone call, the police were advised that an injured person was in the men's restroom of the East Terminal, San Diego International Airport, San Diego, California. The police responded but found no one in the restroom. During a search of the area, one M-18 smoke grenade and two L-324 smoke parachute signals were found in a trash receptacle. The items were safely disposed of by the police.
- August 11 - A bomb exploded under a seat cushion of a window seat in the rear cabin area of a Pan American World Airways B-747 aircraft which was en route from Honolulu, Hawaii, to Tokyo, Japan. The blast caused considerable damage in the area of the seat, parts of the ceiling, and overhead racks. A hole about 1 foot by 3 feet was ripped in the floor and rivets were popped causing a bulge in the fuselage. The aircraft filled with smoke, some of the emergency oxygen masks deployed, but the aircraft did not depressurize. The damaged aircraft made a safe landing

at Honolulu on schedule, about 17 minutes after the explosion. One person was killed and 20 others were injured.

- o August 25 - About 2 hours after a Pan American World Airways B-747 aircraft landed at Rio de Janeiro, Brazil, completing a flight from Miami, Florida, a bomb was found in the passenger cabin area by a member of the maintenance crew. The bomb was described as a homemade type, wrapped in plastic, and about the size of a book. Reportedly, it would have caused considerable damage to the aircraft if it had exploded while aboard the aircraft. The bomb was safely removed from the aircraft and taken into custody by Brazilian authorities.
- o September 24 - During several telephone calls to the American Airlines office in Los Angeles, California, a man demanded \$400,000 (U.S.) and indicated that a bomb had been placed in the terminal at the Los Angeles International Airport, Los Angeles, California. A search was conducted, and a pipe bomb was found in a suitcase which was located in a baggage area. The suitcase had been checked for flight on American Airlines Flight 75 to San Diego, California. The bomb reportedly would have caused substantial damage if it had exploded. It was safely defused shortly after being located. The perpetrator of the incident was arrested near the site where the money was to have been left. He was convicted of attempted extortion, use of an explosive to commit a felony, and unlawful possession of a destructive device.
- o October 22 - A suitcase which was taken off Northwest Airlines Flight 208 at Logan International Airport, Boston, Massachusetts, after completion of a flight from Minneapolis-St. Paul International Airport, St. Paul, Minnesota, was searched and found to contain five sticks of dynamite, detonators, and a timer. The suitcase had been checked at Los Angeles International Airport, Los Angeles, California, for transportation to Logan. It was carried aboard Northwest Airlines Flight 200 from Los Angeles to Minneapolis-St. Paul, and there transferred to Northwest Airlines Flight 208. No one claimed the bag at Logan.
- o December 16 - A cardboard tube about 8 inches long and 4 inches wide was discovered by two men in a trash container in a men's restroom at the Honolulu International Airport, Honolulu, Hawaii. The men partially disassembled the device and determined that it appeared to be a bomb. They carried the device to a security screening checkpoint and notified the personnel on duty. The area was cordoned off by the police, and the device was safely removed and defused by explosives technicians. Upon examination, the tube was found to contain three firecrackers and smokeless gunpowder. Each end was closed with a metal disc taped in place and a fuse extended out from one end.

VI. BOMB THREATS

There were 497 threats to use explosives against aircraft or airports during the reporting period. This represents a decrease of about 15 percent from the 583 threats reported in the first half of 1982 and a 19 percent decrease from the 614 received during the second half of 1981. This is the smallest total number of bomb threats recorded during any 6-month period since 1970.

Of the 497 threats, 416 were against aircraft which is about 10 percent less than the 461 threats received in the first 6 months of 1982. This is the smallest number of bomb threats against aircraft received during any 6-month period since 1970. Of the 416 threats, 282 were considered serious as defined in Exhibit 6. Telephone threats accounted for 236 (84 percent) of the serious threats. The remaining 46 (16 percent) were made in writing or verbally or were the result of locating suspect devices at various airport locations. These serious threats caused at least 239 searches to be conducted and at least 192 flight delays or diversions. There was a total of 31 U.S. airlines and 26 foreign airlines involved in the serious bomb threats. In 10 cases, the threats were accompanied by extortion demands.

Almost all of the 81 bomb threats made against airports were received under circumstances in which the specific airport was identified, therefore, all bomb threats against airports were considered serious. The 81 bomb threats resulted in 74 searches and 23 evacuations. Telephone threats accounted for 62 (77 percent) of the total. Extortion attempts were included in 3 of the threats.

(See Exhibits 5, 6, and 7)

VII. CURRENT THREAT ESTIMATE

Civil aviation continues to be an attractive and dramatic target worldwide. Hijackings and other criminal acts against civil aviation remain a major threat to the lives and property of people traveling and working in air transportation.

A total of 13 air carrier hijackings, 5 of which were successful, occurred worldwide during the July-December 1982 period. This number of hijackings is almost at the high level of 17 hijackings (10 successful) which occurred during January-June 1982. The yearly total of 30 air carrier hijackings approximates the high rate of worldwide hijackings which has occurred over the past 2 years, i.e., 29 in 1981 and 38 in 1980.

Acts of terrorism continued to pose a threat to civil aviation. During the reporting period, 2 of the 13 air carrier hijackings were committed by members of a terrorist group. The greatest danger remains in Europe, the Middle East, and Central America. Reportedly, groups such as the Popular Front for the Liberation of Palestine, the Japanese Red Army, West German Red Army Faction, the Italian Red Brigade, the Spanish Basque Separatists, and the Armenian Secret

Army for the Liberation of Armenia continue to maintain links and associations and to cooperate and assist each other. According to a well-known European newspaper, lists were discovered bearing the names, addresses, and nationalities of international terrorists who reportedly came from 30 different countries and trained in South Lebanon during 1981. These loose ties, training, and probable financial support have not only enhanced but have increased the capabilities of involved organizations to carry out terrorist acts against international targets.

Generally, terrorist groups have not been active against civil aviation during the last few years; however, they continue to have the potential to carry out terrorist acts. They remained a concern and a threat during the reporting period. The frustrations and losses experienced by the Palestinian forces and the seige of West Beirut caused tension to mount throughout the Middle East. Resentment was expressed against what appeared to be U.S. lack of concern for the plight of the Palestinians. Anti-U.S. demonstrations were held around the world at U.S. Embassies and Consulates protesting U.S. alleged support of the Israeli Lebanon invasion. In addition, the massacre of Palestinians in Beirut refugee camps deeply distressed and angered people around the world. The U.S. was blamed by various groups and foreign media for not "controlling the Israelis," and several news stories claimed the U.S. guarantees for the safety of the people of Beirut were "just empty promises." To add further consternation to the situation, the Palestinian Liberation Organization leader, Yasir Arafat, during a regional tour of several Arab countries, made statements in which he blamed the U.S. envoy, Philip Habib, and the multinational forces for the massacre of refugees in the Beirut camps. Reportedly, terrorist activity against international targets could well be renewed if progress is not made in stabilizing the Lebanese Government and the resolution of the Palestinian problem. It is anticipated radical Palestinian groups may revert to anti-U.S. terrorist acts worldwide to include hijacking and sabotage.

In West Germany, violent protests and demonstrations against nuclear proliferation and/or for disarmament and against the new third runway at Frankfurt International Airport continued. Bombing attacks occurred against firms involved in the runway construction and against firms involved in the development of nuclear energy. Bombings directed against the U.S. military occurred at U.S. military facilities and installations with a relatively high frequency throughout the reporting period. The Revolutionary Cells, an organization made up of leftist extremists who oppose the U.S. military and nuclear weapon sites in West Germany, claimed responsibility for a number of the bombings which have occurred. There were approximately 56 significant terrorist acts against U.S. interests in West Germany during 1982.

In Italy and Turkey, the continued success of counterterrorist operations have kept terrorist activities at a low level; however, terrorists managed to carry out a devastating attack at Ankara International Airport during August. Two Armenian terrorists fired a submachinegun into a group of passengers and set off a bomb at the airport. Nine people were killed (including 1 U.S. citizen) and

more than 70 people were injured (including the husband of the U.S. citizen killed). One terrorist was killed, and the other fled to the airport cafeteria where he took 20 persons hostage. After 2 hours, the police stormed the restaurant, killing the terrorist. The Armenian Secret Army for the Liberation of Armenia claimed responsibility for the attack. Other Armenian terrorist incidents worldwide included assassination of Turkish diplomats, occupation of Turkish business facilities, and bombing of airline ticket offices. During the reporting period, the Armenian Secret Army for the Liberation of Armenia reiterated its threat to attack U.S., Canadian, French, British, Swiss, and Swedish interests if Armenians held in prison were not released.

In Italy, terrorism has been at a low level and only symbolic acts of violence have been committed. It is believed that the primary terrorist organization, the Italian Red Brigade, has been badly hurt by the Italian Government's counterterrorism success, but it is not believed that the Italian Red Brigade has given up its war against U.S. interests, the North Atlantic Treaty Organization, and the Italian Government.

The Spanish Basque Separatist, known as the Fatherland and Liberty (ETA), continued their terrorist campaign in Spain and ETA members were sought for murders, kidnapping, numerous bombings, and bank holdups. Just prior to the general election on October 28, 1982, banks and insurance companies were the targets of terrorist bombings in an outburst of violence attributed to the ETA. Despite the election of a Socialist Premier in Spain, ETA issued a communique which stated it would continue anti-government attacks until imprisoned ETA terrorists were freed and the North Basque provinces in Spain were permitted to negotiate toward independence. ETA is considered responsible for nearly 400 political assassinations, largely of police and military personnel since 1968.

The threat to U.S. facilities, embassies, and U.S.-affiliated commercial companies overseas increased considerably during the reporting period. Anti-U.S./Israeli demonstrations, rallies, bombings, and other violent acts occurred throughout the world because of the alleged proliferation of Western Europe with nuclear weapons, the Israeli invasion of Lebanon, the massacre of refugees in Beirut, and the alleged support the U.S. was providing to the Israelis.

In Central American, guerrillas and terrorists continued their violent acts at the same high level as the previous reporting period. The Honduran airline office was bombed in Costa Rica. There were no injuries and no group claimed responsibility. In Honduras, several bombs exploded in Tegucigalpa, damaging the Pan American Life Insurance building, where 4 people were injured; the Air Florida ticket office, where 2 people were injured; and the El Salvador TACA Airline office, where 4 people were injured. In addition, several explosions occurred at U.S. and Japanese firms in Honduras with no injuries reported. A leftist organization called the "Lorenzo Zelaya" Revolutionary Popular Force claimed responsibility for the bombings in Honduras. In San Pedro Sula, Honduras, the Chamber of Commerce building was seized by terrorists, taking 80

hostages and demanding the release of 40 political prisoners. After 8 days the seige ended, when 12 terrorists were provided safe passage to Cuba on a Panamanian aircraft. Bombings also occurred in Costa Rica and Guatemala. No group claimed responsibility for the bombings of the Honduran airline office in San Jose, Costa Rica, while the Guerrilla Army of the Poor (EGP) claimed responsibility for a bombing in Guatemala City, Guatemala, where one person was injured. In El Salvador, guerrillas kidnapped 200 people attending a soccer game. The guerrillas lined up spectators, players, and vendors, at gunpoint and marched them into the hills. This mass kidnapping was the first in El Salvador by the anti-government guerrillas who have been fighting for 3 years to secure control of the government.

In South America, terrorist violence continued at an increased level. In Peru, increased violence and terrorism were attributed to a group called "Sendero Luminoso" (Shining Path). Reportedly, in December this organization carried out almost daily attacks and assassinations in the Ayacucho region (an area approximately 200 miles southeast of Lima, Peru) as well as isolated attacks in other areas. In Colombia, violence and terrorism decreased somewhat. This could be attributed to amnesty granted to terrorists which is aimed at pacifying Colombia's 4,000 insurgents after more than 40 years of violence. In Bolivia, an Italian rightwing terrorist was expelled and returned to Italy for trial. The terrorist was wanted for his involvement in the August 1980 bombing of the Bologna, Italy, railway station in which 80 people were killed.

In the Far East, acts of terrorism and violence increased during the reporting period. Three known unsuccessful hijackings occurred, one involved a domestic flight of the People's Republic of China, Civil Aviation Administration of China (CAAC) Airline and two domestic flights of Indian Airlines. The five hijackers of the CAAC flight reportedly have been tried and executed. The Indian Airlines hijackings were perpetrated by members of a Hindu religious group called the Sikhs.

Demonstrations occurred throughout Asia protesting the Lebanon invasion and the seige of Beirut. In Japan, several demonstrations and rallies against the expansion of the airport at Narita took place. In India, the Sikhs rioted and demonstrated for autonomy in the State of Punjab, India. The Sikhs in the past have assassinated officials, hijacked planes (two during the reporting period), and sabotaged railway lines to press their demands for autonomy. More recently, they have declared a "Holy War" to achieve their goal. There was an explosion at the Lahore, Pakistan airport, outside the VIP lounge, in which 8 people were killed. In Manila, Philippines, Moslem separatists attempted to assassinate a senior advisor to President Marcos, and bombs were detonated in the tourist district by leftist guerrillas and rightist rebels attempting to mount a nationwide terrorist campaign. About 500 miles south of Manila, two separate bomb incidents killed 5 people and injured 83. The Moro National Liberation Front, a Moslem separatist group fighting for self-rule in the Mindanao-Sula region of the Philippines, was blamed for the attack. This secessionist movement has claimed more than 60,000 lives during the past 10 years.

In the United States, anti-Castro groups and Puerto Rican Nationalists continue to pose a threat to civil aviation; however, the level of activity for these organizations has been low during the reporting period. Omega 7, the most militant anti-Castro group, claimed credit for an explosion at the Venezuelan Consulate in Miami. The attack was in retaliation for the apparent bad treatment of Orlando Bosch by the Venezuelan authorities. Reportedly, Orlando Bosch is a prominent member of the anti-Castro groups. The Puerto Rican Separatists organization, Armed Forces of Puerto Rican Liberation (FALN) claimed responsibility for a bombing at a bank in Manhattan Burrough, New York, as a protest against U.S. alleged involvement in the massacre of refugees in Beirut. Additional FALN members were arrested in New York during the reporting period, bringing the total to 12 members now serving jail terms.

Other organizations of concern in the U.S. are the Armenian groups. Except for the assassination of a Turkish diplomat in Ottawa, Canada, the level of activity of the Armenian terrorists in the Western Hemisphere was low in the second half of 1982. The Armenian Secret Army for the Liberation of Armenia, however, has threatened to attack the interests of those countries holding Armenians in prison if they are not released.

While the threat of hijacking persists, sabotage and other criminal acts continue to pose a serious threat to civil aviation. A total of 41 criminal acts occurred during the reporting period, resulting in 14 deaths and 160 injuries. One of these deaths occurred during the hijacking of a U.S. aircraft. Fourteen of these incidents were hijackings (13 air carriers, 1 general aviation), two of which were committed by members of groups considered to be terrorist organizations. Explosions accounted for 15 incidents (1 aboard an aircraft, 4 at airports, 10 at airline offices) with 7 of these considered to be terrorist actions. Seven incidents involved real or hoax explosive devices found (2 aboard aircraft, 3 at airports, and 2 at an airline office), 1 of which was placed by a terrorist; 2 airport terrorist attacks, and 3 other incidents involving criminal acts against civil aviation.

Since 1974, worldwide criminal acts against civil aviation have resulted in 729 dead and 1,028 injuries with 119 deaths and 166 injuries involving U.S. civil aviation.

(See Exhibits 1, 2, 3, 5, and 8)

#### VIII. PASSENGER SCREENING

The U.S. passenger screening program was initiated in January 1973. Since then, there have been 73 air carrier aircraft hijackings. This is approximately 7 per year, and is about one-fourth the average of 27 per year experienced in the 5 years immediately preceding the beginning of the program. In this first decade of operation, over 4.4 billion persons have been screened and over 5.8 billion pieces of carry-on items have been inspected. As a result of this screening, over 26,000 firearms have been detected resulting in more than 10,000 arrests.

Passenger screening activity at U.S. airports centers specifically on the detection of firearms and explosives or incendiary devices which are considered to present the greatest threat to civil aviation security. The FAA's analysis of screening checkpoint activity includes the recording and study of the number of firearms and explosives or incendiary devices detected, false threats received, and certain other offenses, as well as related information received concerning arrests and disposition of cases.

During the last half of 1982, over 310 million persons were processed through screening checkpoints at 379 of the 411 airports involved in the Civil Aviation Security Program. A total of 1,390 firearms was detected; 1,314 (94 percent) through X-ray inspection, 55 (4 percent) by metal detection devices, and 21 (2 percent) by physical search. This total is approximately 26 percent higher than the average of 1,103 firearms detected during the preceding 8 reporting periods and 8 percent higher than the total of 1,284 firearms detected during the last half of 1981.

Total persons screened decreased 8.8 million from the previous reporting period. Comparing the total persons screened and total of weapons detected during this reporting period with the average persons screened (300 million) and the average weapons detected (1,103) for the preceding 8 reporting periods, it is interesting to note that persons screened increased 4 percent and weapons detected increased 26 percent. One explosive device was detected during this reporting period, contrasting with the average of 3 detected during the preceding 8 reporting periods.

Persons arrested at screening points for the carriage of firearms totaled 663. This is an increase of 110 (about 20 percent) over the average of 553 arrests for the preceding 8 reporting periods and an increase of 10 (about 2 percent) over the 653 arrests which occurred during the last half of 1981. The 663 arrests involved some 40 U.S. airlines at 87 U.S. airports.

Starting with the previous reporting period, screening activities are being analyzed within airport categories according to the number of persons screened per year; e.g., Category I - 2 million and above, Category II - 500,000 to 2 million, and Category III and IV - under 500,000. Screening at Category IV airports is conducted only when deplanement into a sterile area is desired. Of the 663 arrests, 498 (75 percent) occurred at 37 Category I airports (e.g., Atlanta, Georgia, and Los Angeles, California); 138 (21 percent) occurred at 32 Category II airports (e.g., Norfolk, Virginia, and Midland, Texas); and 27 (4 percent) occurred at 18 Category III and IV airports (e.g., Peoria, Illinois, and Great Falls, Montana).

Of the 663 individuals arrested, 118 (18 percent) were fined, placed in confinement and/or placed on probation, and 85 (13 percent) had the charges dropped or dismissed, making a total of 203 (31 percent) cases settled. In the remaining 460 arrests (69 percent), action is still pending. Of the total 203 cases settled, 58 percent (the 118 cases cited above) resulted in fines, confinement,

or other disciplinary action. In addition to these criminal actions, FAA may take civil action against individuals who, without proper authorization, attempt to carry a firearm or explosive/incendiary device through screening checkpoints. During this reporting period, 1,173 investigations of individuals were completed and \$9,740 in civil penalties were collected.

The equipment primarily used to carry out security screening operations are walk-through weapons detectors for the screening of persons and, at high volume stations, X-ray inspection systems for carry-on items. There are currently in use approximately 946 walk-through weapon detection devices and 834 X-ray inspection systems. In addition, there are a large number of hand-held devices in place which are used as backup support for the walk-through weapon detection devices. Air travelers on many occasions have indicated that the screening procedures are not considered excessively inconvenient and in the interest of aviation safety are expected and desired.

(See Exhibits 1, 9, 10, 11, 12, 14, and 17)

#### IX. CIVIL AVIATION SECURITY ACTIONS

The success of the U.S. Civil Aviation Security Program can be principally attributed to the basic policies of the program which are based upon cooperation and mutually supportive efforts by involved airlines, airports, local governments, the Federal Government, and the flying public. While improvements in the security system are sought on a continuing basis, the passenger screening and other security measures currently in effect properly provide for the security of passengers, crews, aircraft, and airports. These measures presently cover over 250 U.S. and foreign airlines operating approximately 14,600 flights daily to and from about 675 U.S. and foreign airports. To ensure security for these flights, about 1.798 million persons and approximately 1.804 million pieces of carry-on items are screened daily. During periods of perceived threat, it has been necessary from time to time to initiate extraordinary security measures to insure that proper security is consistently maintained. For example, the explosion aboard a Pan Am aircraft on August 11 and the locating of a similar type bomb on another Pan Am aircraft on August 25 necessitated the instituting of extraordinary security measures in selected areas for a limited period.

(See Exhibits 13 and 14)

Aircraft Security - Actions of significance concerning aircraft security during the reporting period included the initiation of a revision to the audiovisual air carrier crewmember security training aid and the preparation of hijack incident management seminars to be held in 1983 and 1984. In addition, the audited allowable costs were paid on claims for compensation by certain U.S. air carriers for unreimbursed security screening costs incurred in foreign air transportation during fiscal years 1976 through 1978.

- Revision of the Audiovisual Air Carrier Crewmember Security Training Aid. As of December 31, 1982, 390 copies of FAA's hijack management audiovisual training aid entitled "7500 - A Common Strategy" had been issued to various air carriers throughout the world. This program, used for training over 100,000 crewmembers in the United States, was first issued during 1980, and is due for updating. During this reporting period, an outline of this audiovisual aid with suggested changes was forwarded to interested industry and employee organizations for comment. The comments received were very positive in nature, and those suggested changes considered valid will be accommodated in the updated version. Consultations will be held with those industry groups which recommended changes, and a final version of the updated training aid will be produced in 1983.
- Hijack Incident Management Seminars. FAA and the Federal Bureau of Investigation have tentatively agreed to host and conduct a series of hijack incident management seminars in major cities throughout the United States. These meetings will be similar to those held during 1979 and 1980, and will be used to explain Executive Branch agency responsibilities and the value of using a common strategy when a hijacking occurs. This method of "pre-planning" the Federal, state, and local response when a hijacking occurs has proved most valuable in the past. The seminars are needed at this time since many people have changed positions in the air transportation industry in the past 4 years. It is expected that the seminars will be held during 1983 and 1984, and will be presented only to airline, airport, and law enforcement officials.
- Air Carrier Compensation for Security Screening Costs Incurred in Foreign Air Transportation. By Section 24 of Public Law 94-353, July 12, 1976, Congress authorized the Secretary of Transportation to compensate air carriers for security screening expenses incurred in foreign air transportation. The amount of compensation is to be reduced by the amount of revenue attributable to the air carrier's costs for security screening. A total of \$9,750,000 was authorized to cover fiscal years 1976, 1977, and 1978. The task of carrying out the Section 24 provision was delegated to the Federal Aviation Administration, and, in 1980, Special Federal Aviation Regulation 34, which established procedures for dealing with claims, was issued. Claims received from four air carriers were audited by the Office of the Inspector General. The uncontested portions of these claims were paid in November 1982. Costs questioned by the audit which remain at issue are currently undergoing further legal, policy, and administrative review. The airlines concerned have been advised that they will be notified when a final determination is reached. Section 524(d) of Public Law 97-241, August 24, 1982, extended the eligibility period for the submission of claims to August 13, 1980. A total of \$15 million was authorized for this program. An implementing Federal Aviation

Regulation was adopted in December 1982. The air carriers have until November 1, 1983, to submit new claims.

Airport Security - The security programs in operation at U.S. airports have proven to be practical and efficient, as well as safe and cost effective. Efforts are being made on a continuing basis to surface and address problem areas and to develop program improvement. Some of the major efforts in this area during the second half of 1982 included refinements in the flexible law enforcement response procedures, a study directed toward the consolidation and reduction of the many instructional signs at airports, continued training of law enforcement personnel and others directly involved in aviation security activities, and the continuation of the Explosive Detection K-9 Team Program. The following is a summary of these activities:

- o Airport Law Enforcement Support Alternatives. Following the recommendations of an FAA/industry working group composed of FAA and airline and airport operator representatives, rather than requiring that law enforcement officers (LEO's) be present at the screening checkpoints during all screening operations, airport operators have been authorized to adopt various flexible response options for their LEO's and still comply with FAA law enforcement regulations. These flexible response options were approved by FAA in September 1981. As of the end of 1982, 240 U.S. airports were operating under one of these new law enforcement support options. These more effective methods of utilizing LEO's supporting the security screening systems at airports have brought about savings to the industry which are estimated to exceed \$14 million annually. The working group met again during this reporting period to further refine the flexible law enforcement response system.
- o Reduction in Signs at Airports. In December, in an effort to reduce the proliferation of instructional signs at airports throughout the United States, FAA security representatives participated in an adhoc Government/industry task force to study all signs posted in and around an airport. The purpose of the study was to determine which signs were required by law or regulation and those that were for information only (public awareness). The task force, where feasible, will attempt to consolidate signs, adopt international symbols, and eliminate unnecessary signs. The task force is chaired by a representative of the Air Transport Association of America, and its membership consists of representatives from interested aviation industry organizations and Government agencies.
- o Civil Aviation Security Training. Law enforcement officers and others assigned to support airline and airport security programs may receive formal classroom training primarily designed for their duties at the Transportation Safety Institute, Oklahoma City, Oklahoma. The course provides detailed instructions on civil aviation security requirements, procedures, and techniques. As of the end of 1982, a total of 110

classes have been conducted for 2,521 students including 1,793 local law enforcement officers, 356 foreign students, 289 FAA employees, and 83 others including representatives of other U.S. Government agencies and aviation industry officials. In addition to the formal classes at Oklahoma City, special 2-day seminars, attended by 3,739 persons, have been conducted at 53 airports throughout the nation.

- o Explosive Detection Dog/Handler Teams. Since the Law Enforcement Assistance Administration terminated their participation on July 1, 1981, the FAA has assumed full financial responsibility for the Explosive Detection Dog/Handler Team (K-9 Team) Program. As a temporary solution, FAA transferred a limited amount of funds from other programs to support this program. In September, the situation was corrected with the enactment of the Airport and Airway Improvement Act of 1982, section 529 (Public Law 97-248), which authorized funds for the FAA to support this program. As a result, FAA will continue to support the training and evaluation of Explosive Detection K-9 Teams assigned to up to 30 local law enforcement jurisdictions. The U.S. Air Force will continue to provide technical assistance in the form of training and evaluation of the teams. FAA will provide direct reimbursement for these services under an interagency agreement. Currently, 28 local law enforcement organizations are participating in the program. Ongoing negotiations, if successful, will bring two additional jurisdictions into the program. Teams are positioned so that this emergency support is available at airports to threatened aircraft flying anywhere over the contiguous 48 states of the United States within a minimum of 30 minutes flying time. To date in actual explosive detection missions, the teams have detected 50 explosive items in the course of 6,770 aircraft and airport searches. In addition, they have conducted 6,871 explosive searches in their local communities detecting 188 additional explosive items.

(See Exhibit 15)

Research and Development - The FAA has a continuing research and development program which is designed to improve existing equipment and to develop effective techniques and equipment to detect explosives in checked baggage, in air cargo, and when carried by individuals. The following is a description of these efforts:

(See Exhibit 16)

- o X-ray Absorption. The concept of X-ray absorption detection is based upon an automatic computer-based analysis of the size, shape, and X-ray density of checked baggage contents. The X-ray absorption device developed is the first of its type available anywhere in the world. An operational test of this technique demonstrated sufficient detection capability to warrant further development. As a result, two systems were modified for operational evaluation. One was installed at Dulles

International Airport, Washington, D.C., and an operational evaluation involving the processing of over 65,000 pieces of baggage was completed. The system demonstrated that it can be effective in the detection of explosive devices in checked baggage. The second operational prototype system was delivered to the FAA Technical Center, Atlantic City, New Jersey, to test advanced computer programming techniques with a view to further improving detection performance. A new advanced adaptive algorithm (computer program) is designed to enhance the detection capability of the system and, at the same time, reduce false responses. It has been placed in the system at the FAA Technical Center as well as in the system at Dulles International Airport for test and evaluation. Initial limited tests indicated that with the new algorithm installed, the system would perform better and the detection capability would be enhanced. A 90-day operational evaluation at Dulles International Airport using this new algorithm was completed in November 1982. Preliminary review of this evaluation indicates that the performance of the system has been improved.

- o Thermal Neutron Activation. The technical feasibility of this concept, which involves identification of explosives by means of detecting a nuclear reaction unique to a specific explosive material has been demonstrated. A portable system has undergone development at Greater Pittsburgh International Airport, Pittsburgh, Pennsylvania, and Logan International Airport, Boston, Massachusetts. Analysis of the test data indicates that the system may be suited for the processing of air cargo and/or checked baggage. Research is continuing to further enhance the detection capability. Negotiations to develop a documentation and data package as well as assembly drawings of the key elements of the system are underway and will be shared with the aviation industry upon receipt.
- o Nuclear Magnetic Resonance. This concept relies on the detection of a characteristic response of explosive molecules when they are subjected to magnetic and pulsed radio frequency fields. After a scale model of the system was constructed and the feasibility of this concept demonstrated, airport evaluations to gather research and development data and to determine operating characteristics were conducted. Analysis of this data showed that the concept is feasible. Difficulties have been experienced in converting the laboratory model into a system for operational tests. Efforts to accomplish this are continuing, however, and it is currently expected that a 2-week research and development evaluation of the converted model will be conducted at Dallas/Fort Worth Regional Airport, Fort Worth, Texas, in late January 1983. After results of this test are analyzed, a full operational evaluation may be scheduled.
- o Walk-By Explosive Detector. The Transportation Systems Center, Department of Transportation, Cambridge, Massachusetts, is developing

equipment which will detect explosives being carried by individuals without harming the individuals. Although an unsuccessful attempt was made several years ago to develop a similar system, this new effort is being undertaken in view of the recent improvements in technology with regard to vapor collection and sampling. Success in this area would significantly contribute to the development of a complete explosive detection system covering all methods of placing explosives aboard aircraft. Laboratory evaluation of a prototype device indicates that, to develop an effective device, further improvements in the state-of-the-art sensor devices are required in the area of vapor collection and sampling. In this regard, an FAA request for proposal is expected to be issued in early 1983 in an effort to determine if industry can produce a detector which meets the stringent FAA specifications.

International Activities - Virtually all of the major countries of the world presently have and are actively implementing a civil aviation security program which complies with the guidance provided by the International Civil Aviation Organization. A large number of these countries have continuous programs to improve the security of their aircraft and airports. Further, many countries, to the extent of their resources, provide security technical assistance to other nations in an effort to ensure the security of civil aviation worldwide. The following is a summary of significant efforts during this reporting period which contributed to the improvement of civil aviation security internationally:

- o Third International Civil Aviation Security Conference. In July, the Third International Civil Aviation Security Conference, hosted by the Department of Transportation, Federal Aviation Administration, was held in Washington, D.C. The conference was attended by over 400 representatives of Government, aviation industry, and aviation organizations from 63 countries. The conference focused on recent aviation hijack/sabotage experience (including acts of terrorism), adequacy of Government and industry security measures, research and development in explosive detection techniques, and hijack incident management concepts. In addition, a general review of operating experience under the U.S. Federal Aviation Regulations on security was presented by various speakers.
- o International Civil Aviation Organization (ICAO). During the Third International Civil Aviation Security Conference held in July, representatives of several participating countries suggested that hijack incident management seminars be held in various regions throughout the world. To satisfy these requests, in 1983 FAA will hold the first of these seminars under the sponsorship of ICAO at the ICAO Headquarters, Montreal, Canada. It is anticipated that these seminars will significantly contribute to the worldwide efforts to attain a uniform approach and strategy in the management of hijack incidents.

- Research and Development Agreement with Canada. In October, FAA technical security personnel met with representatives of the National Research Council of Canada at their research laboratory in Ottawa, Canada. This meeting was in furtherance of the joint research agreement between the FAA and the Air Transportation Administration of Canada which was initiated in March 1982. Discussion at the meeting centered on explosive vapor detection research. The Canadian laboratory has developed a prototype system that can collect the air from the outflow air valve of an aircraft and analyze the trapped vapors for the odors of explosives. More comprehensive testing is planned to determine the feasibility of using this technique operationally to detect explosives.
- Foreign Technical Assistance. To assist the international aviation community, FAA has an ongoing program of providing aviation security technical assistance to requesting countries. This assistance includes technical assistance team visits to the countries, indepth briefings of foreign civil aviation personnel, training at the Transportation Safety Institute, and distribution of analytical studies and training aids. Representatives of various countries at the Third International Civil Aviation Security Conference requested technical assistance visits. These requests are being considered and coordinated with the Department of State. It is expected that priority will be given to the requests of countries in which the threat of aircraft hijacking or aircraft sabotage is considered the greatest.

(See Exhibit 17)

#### X. COMPLIANCE AND ENFORCEMENT

The objective of the FAA Compliance and Enforcement Program is to assure safety and security for all persons moving in air commerce. Cooperation between industry personnel and the persons responsible for enforcement of the regulations is essential to the success of this program. In most cases, airline and airport operators recognize potential problems and take corrective action, thereby eliminating the need for enforcement action. Alleged violations of regulatory requirements, however, are investigated and, when necessary, appropriate administrative or legal actions are taken.

During the second half of 1982, 1,380 investigations of alleged security violations by air carriers, airports, and individuals were completed. A total of \$15,440 (U.S.) was collected as a result of civil penalties levied in 51 cases. In 1,239 cases, administrative action was taken, and, in the remaining 90 cases, the alleged violations were not substantiated. The total number of investigations completed during 1982 is about 10 percent less than the total number completed in 1981, 25 percent greater than the total in 1980 and about 4 percent greater than the annual average number completed in the 2 years. This

indicates that there has been little overall change in the recent annual trend in compliance and enforcement actions.

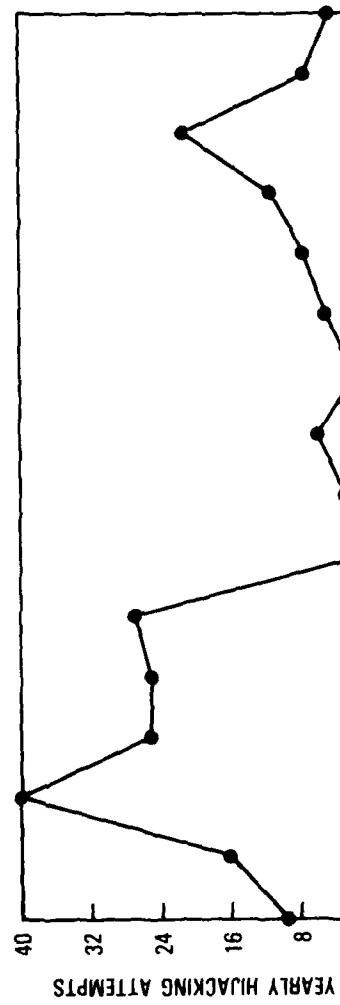
(See Exhibit 18)

XI. OUTLOOK

The U.S. Civil Aviation Security Program is entering its second decade of operations. During the past 10 years, the annual average number of U.S. air carrier aircraft hijackings has been reduced about 75 percent through the effective and efficient implementation of mandated security safeguards by air carrier and airport operators. While the total number of hijacking incidents over the years has declined, mentally deranged, disgruntled, and disenchanted individuals, along with terrorists, criminals, and homesick Cuban refugees, still make the current threat of aircraft hijacking and other violent criminal acts against civil aviation a very real and frequent probability. While no practical method exists which would ensure the complete elimination of aircraft hijacking incidents, the security measures in effect are believed to be sufficient to keep these incidents and all criminal acts against civil aviation at a minimum.



## Hijacking Attempts on U.S. Scheduled Air Carrier Aircraft<sup>1/</sup>



HIJACKING BY YEAR		1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	TOTALS
TOTAL	9	16	40	25	25	27	1	3	6	2	5	8	11	21	7	9	215																		
SUCCESSFUL	4	12	33	17	11	8	0	0	0	1	0	0	0	4	13	1	3	107																	
INCOMPLETE <sup>2/</sup>	1	1	1	4	8	14	1	1	1	0	3	4	5	3	0	1	48																		
UNSUCCESSFUL	4	3	6	4	6	5	0	2	5	1	2	4	2	5	6	5	6	5	6	5	6	5	6	5	60										

<sup>1/</sup>Effective September 1981—Includes all certificate holders as defined in Code of Federal Regulations Title 14 Part 108.

<sup>2/</sup>Hijacking in which hijacker is apprehended/killed during hijacking or a result of "hot pursuit".

U.S. Aircarrier Hijacking Attempts Since Jan. 1, 1982

Date 1982	Airline/Ft/ Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective	Date 1982	Airline/Ft/ Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective
2/2	QH-710/B-737	77	Miami, FL	Cuba	7/22	Marco Island 39/M-404	12	Miami, FL	Cuba
2/13	BN-None/B-727	2	Amarillo, TX	Flight Out of Area	8/16	Dolphin Airways -296/EMB-110	3	Tampa, FL	Cuba
3/1	UA-674/B-727	97	Chicago, IL	Cuba	10/27	TW-72/L1011	109	Los Angeles, CA	Lebanon
4/5	DL-591/B-727	103	Chicago, IL	Cuba	12/30	UA-702/B727	77	Chicago, IL	Washington, DC
6/23	AL-611/DHC-7	4	Staunton, VA	Flight Out of Area					

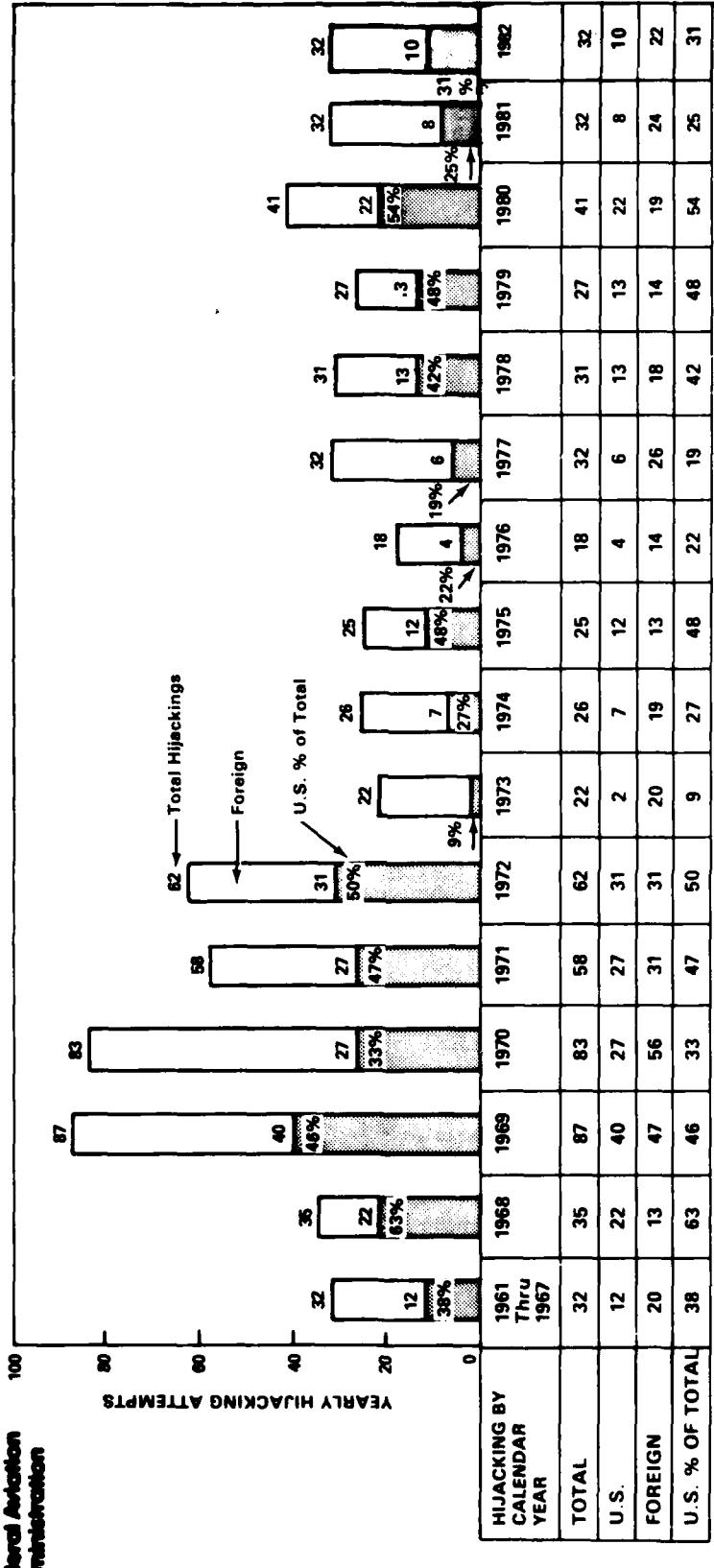
**As of: 1/1/83**

EXHIBIT 1



U.S. Department  
of Transportation  
Federal Aviation  
Administration

## Hijacking Attempts on U.S. And Foreign Aircraft\*



\*Includes General Aviation

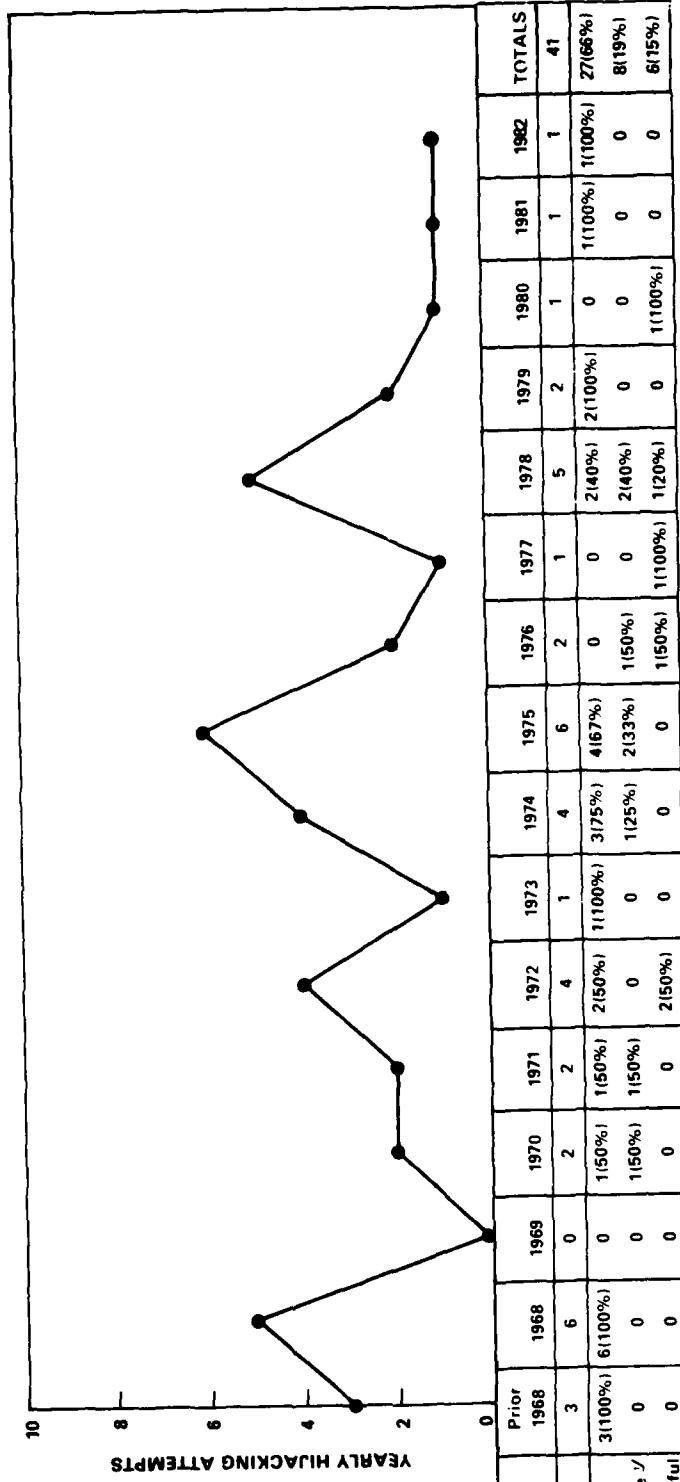
EXHIBIT 2

As of: 1/1/83



US Department  
of Transportation  
Federal Aviation  
Administration

## Hijacking Attempts on U.S. General Aviation Aircraft



Hijacking in which hijacker is apprehended/killed  
during hijacking or as a result of "hot pursuit."

General Aviation Aircraft Hijacking Attempts Since Jan. 1, 1982

	Prior 1968	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	TOTALS
<b>CY</b>	3	6	0	2	2	4	1	4	6	2	1	5	2	1	1	1	41
<b>TOTAL</b>	3	6	0	2	2	4	1	4	6	2	1	5	2	1	1	1	41
Successful	3(100%)	6(100%)	0	1(50%)	1(50%)	2(50%)	1(100%)	3(75%)	4(67%)	0	0	2(40%)	2(100%)	0	1(100%)	1(100%)	27(66%)
Incomplete ✓	0	0	0	1(50%)	1(50%)	0	0	1(25%)	2(33%)	1(50%)	0	2(40%)	0	0	0	0	8(19%)
Unsuccessful	0	0	0	0	0	2(50%)	0	0	0	1(50%)	1(100%)	1(20%)	0	1(100%)	0	0	6(15%)

Date 1982	Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective	Steal and Fly Aircraft
1/8	Piper PA-28	3	Shelbyville, TN		

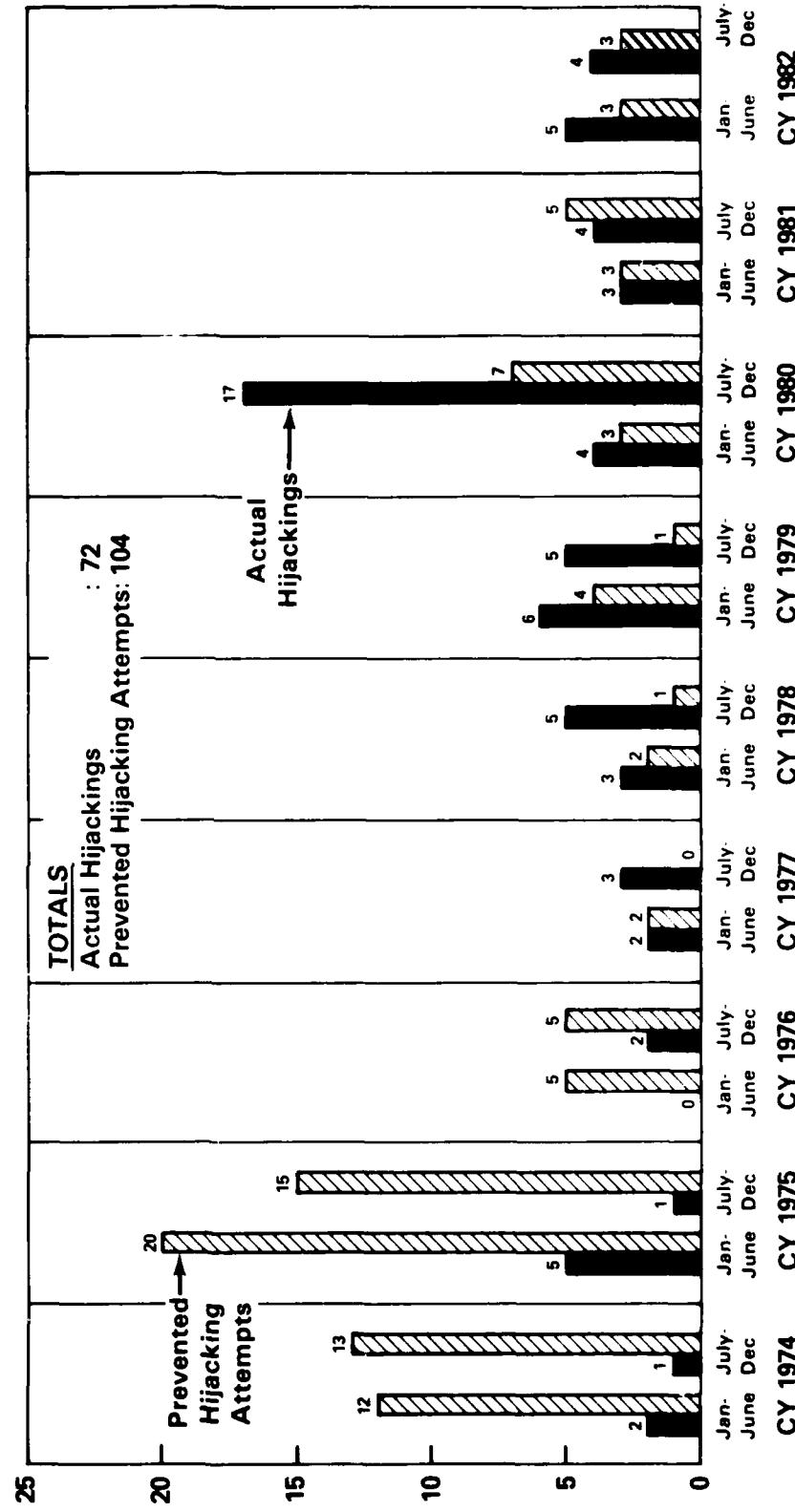
EXHIBIT 3

As of: 1/1/83



US Department  
of Transportation  
Federal Aviation  
Administration

## Actual Hijacking & Prevented Hijacking Attempts (U.S. Air Carrier Aircraft)



**PREVENTED ATTEMPTS:** Incidents in which it appeared the individuals involved intended to hijack an aircraft but were prevented from doing so by security procedures.

As of: 1/1/83



## **Civil Aviation Security The Threat To U.S. Aviation**

	1961-7	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<u>Hijackings*</u>	12	22	40	27	27	31	2	7	12	4	6	13	13	22	8	10
<u>Explosions:</u>																
Aircraft	2	1	1	2	1	1	2	3	2	2	1	0	1	1	0	1
Airports						2	2	4	4	2	3	3	2	1	2	1
<u>Explosive Devices Found:</u>																
Aircraft						1	2	2	1	1	1	2	0	2	1	1
Airports						5	5	3	11	5	3	1	6	6	4	6
<u>Bomb Threats To:</u>																
Aircraft	400	601	1145	2156	1383	1453	1853	1950	1229	1032	1121	1179	1084	877		
Airports			212	288	239	387	449	1036	519	318	309	268	400	203		

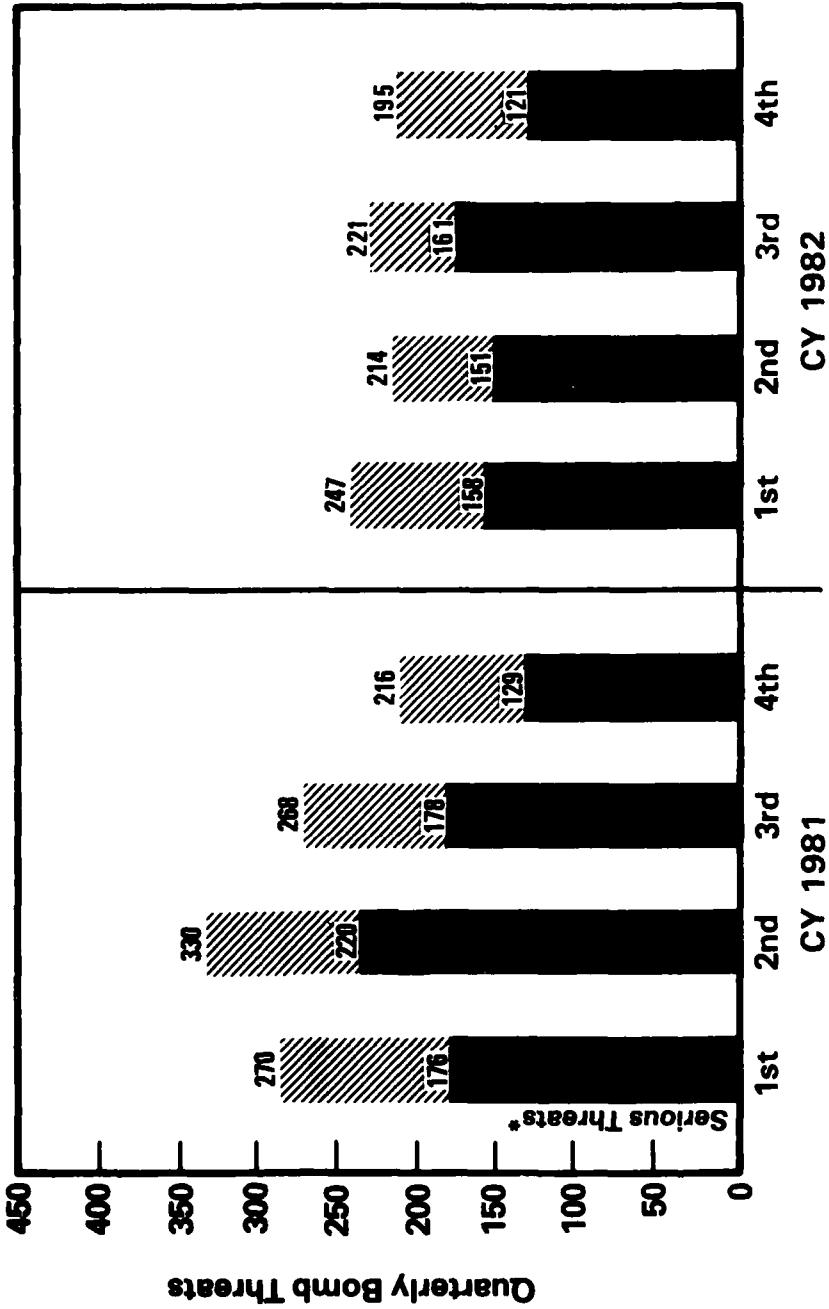
\*Includes Air Carrier and General Aviation Hijackings

EXHIBIT 5

As of: 1/1/83



## Bomb Threats Against U.S. Aircraft and Foreign Aircraft in the U.S.



As of: 1/1/83

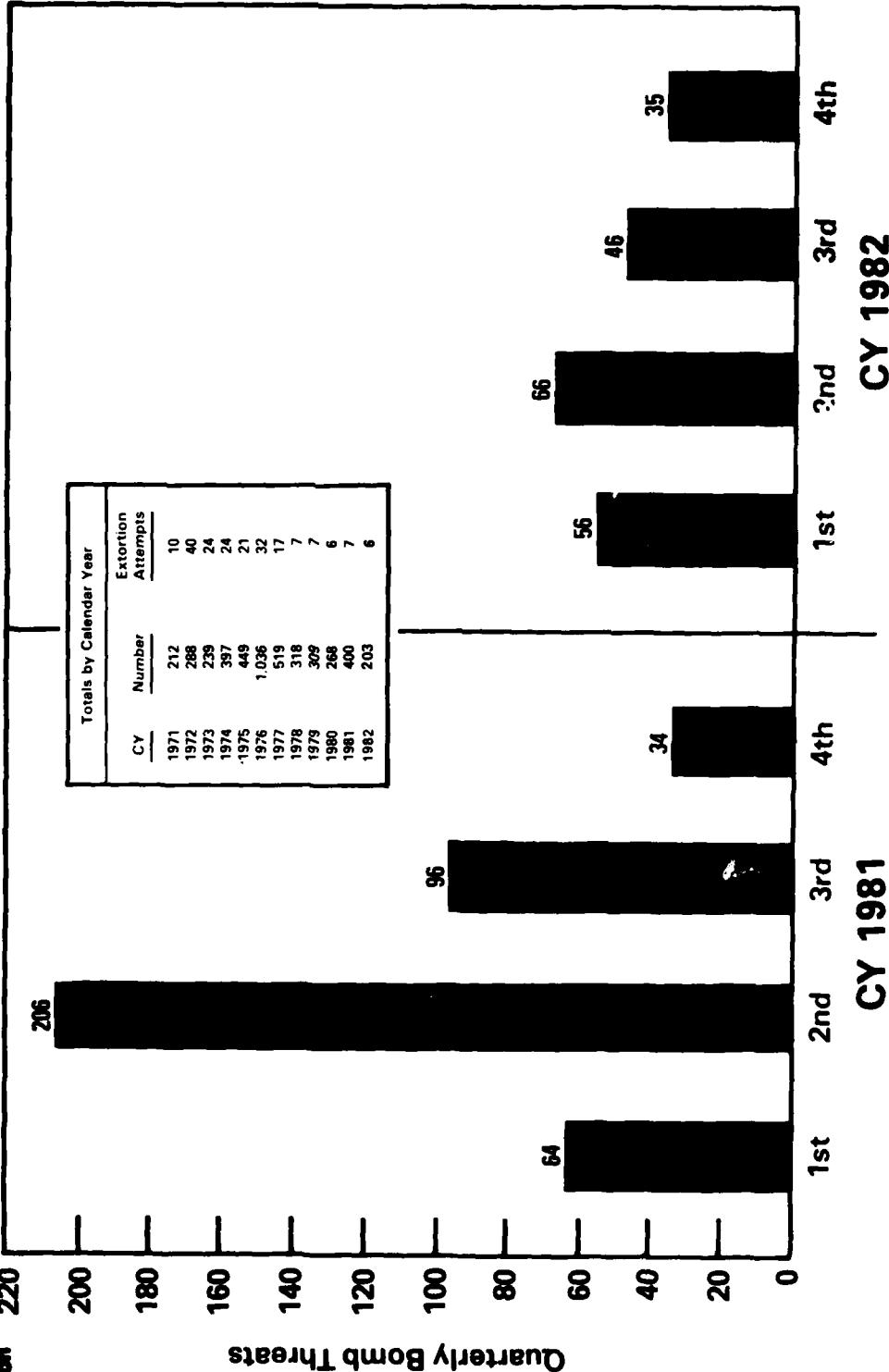
\*A statement is considered a serious threat if one of the following occurs:

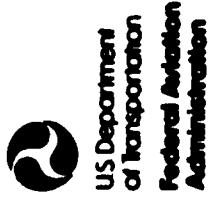
1. It is directed against a particular aircraft or flight.
2. It is not possible to immediately determine if it is made in a joking manner.
3. It results in inconvenience to other passengers.
4. It results in a search or otherwise disrupts airline operations.



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## Bomb Threats Against U.S. Airports





## Worldwide Criminal Incidents Involving Civil Aviation

Year	Deaths	Injuries	Total Incidents	Hijackings (Scheduled Air Carriers)	
				Foreign	U.S.A.
1968*	2	2	30	12	16
1969*	35	7	92	45	40
1970	92	32	82	49	25
1971	31	9	73	30	25
1972	159	96	88	30	27
1973	104	75	73	20	1
1974	170	59	62	17	3
1975	24	162	63	12	6
1976	227	200	55	13	2
1977	129	68	69	25	5
1978	81	147	71	17	8
1979	62	80	85	12	11
1980	4	75	100	17	21
1981	14	62	89	22	7
1982	18	173	83	21	9

\* Statistical data prior to 1970 are approximations.

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## ***Civil Aviation Security Scope and Effectiveness 1973-1982***

- Over 4.4 Billion Persons Screened
- Over 5.8 Billion Pieces of Carry-on Items Inspected
- Over 26,000 Firearms Detected
- Over 10,000 Related Arrests
- 104 Hijackings or Related Crimes May Have Been Prevented by Airline and Airport Security Measures

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EXHIBIT 9



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## Civil Aviation Security Airline Passenger Screening Results January 1978-December 1982

	1978 Jan-June	1978 July-Dec	1979 Jan-June	1979 July-Dec	1980 Jan-June	1980 July-Dec	1981 Jan-June	1981 July-Dec	1982 Jan-June	1982 July-Dec
<b>Persons Screened (Millions)</b>	275.2	304.5	285.7	306.8	289.9	295.1	294.4	304.1	319.5	310.7
<b>Weapons Detected</b>										
Firearms	962	1096	990	1171	1002	1020	971	1284	1286	1390
(1) Handguns	836	991	902	1060	940	938	915	1209	1243	1316
(2) Long Guns	34	33	29	26	17	19	7	37	16	41
(3) Other	92	72	59	85	45	63	49	38	27	33
Explosives/Incendiary Devices	1	2	3	0	1	7	8	3	0	1
<b>Persons Arrested</b>										
For Carriage of Firearms/ Explosives	404	492	469	591	520	511	534	653	651	663
For Giving False Information	31	33	21	26	11	21	34	15	21	6
<b>Other Offenses Detected</b>										
Narcotics	151	99	73	128	75	101	89	130	196	109
Illegal Aliens	723	605	845	844	938	662	843	578	707	681
Other	706	69	40	109	107	67	36	62	33	34

Source: Reports of Passenger Screening Activities at U.S. Airports

EXHIBIT 10

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## ***Civil Aviation Security Weapon Detection Devices***

<u>Type</u>	<u>Basic Characteristics</u>	<u>Manufacturer</u>	<u>Units</u>
Walk-Thru	Creates and Measures	Federal Laboratories	3
Active	Deviations in Own	Infinetics	294
	Electric Field. Detects	Metor	16
	Both Ferrous and Non-	Philips	35
	Ferrous Metals.	Rens	261
		Scanray	3
		Sentrie	329
		Solco	3
		Westinghouse	2
		Total	946

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## ***Civil Aviation Security X-Ray Baggage Inspection Systems***

<b>Characteristics:</b>	Small Dose X-Ray, Intensify Image Electronically, Display on TV	
<b>Operating Criteria:</b>	Meet FDA/BRH and State Health Standards Distinguish 24 Gauge Wire	
<b>Limitations:</b>	Dependent on Diligence of Operators, Demands Constant Attention and Ability to Quickly Recognize Dangerous Articles	
<b>Systems In Use:</b>	Scanray Philips Electronic Instruments Bendix American Science & Engineering New Security Concepts Dennis & Miller Picker	
		<b>Total:</b>
		480 132 106 60 30 19 7 <hr/> 834



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## ***Civil Aviation Security Basic Policies***

PROGRAM ELEMENT	RESPONSIBILITY	ACTIONS
AIR CARRIERS	SECURE TRAVEL	<ul style="list-style-type: none"><li>• MAINTAIN RESPONSIVE SECURITY PROGRAMS</li><li>• SCREEN PASSENGERS, CARRY-ON ITEMS</li><li>• SECURE BAGGAGE, CARGO PROCEDURES</li><li>• PROTECT AIRCRAFT</li></ul>
AIRPORTS	SECURE OPERATING ENVIRONMENT	<ul style="list-style-type: none"><li>• MAINTAIN RESPONSIVE SECURITY PROGRAMS</li><li>• PROTECT AIR OPERATIONS AREA</li><li>• PROVIDE LAW ENFORCEMENT SUPPORT</li></ul>
FAA	LEADERSHIP	<ul style="list-style-type: none"><li>• IDENTIFY AND ANALYZE THREAT</li><li>• PRESCRIBE SECURITY REQUIREMENTS</li><li>• COORDINATE SECURITY OPERATIONS</li><li>• PROVIDE TECHNICAL ASSISTANCE</li><li>• ENFORCE REGULATIONS</li></ul>
USERS	PROGRAM COSTS	<ul style="list-style-type: none"><li>• SECURITY FUNDED AS OPERATING COST OF SYSTEM</li></ul>



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## **Civil Aviation Security Regulatory Impact**

	<u>U.S.<sup>1/</sup></u>	<u>FOREIGN<sup>2/</sup></u>	<u>TOTAL</u>
Carriers	159	93	252
Airports	411	265	676
Aircraft	2,300	1,100	3,400
Flights Per Day	14,000	600	14,600
Screening Activity Per Day:			
Persons	1,688,000	110,000	1,798,000
Carry-On Items	1,704,000	100,000	1,804,000

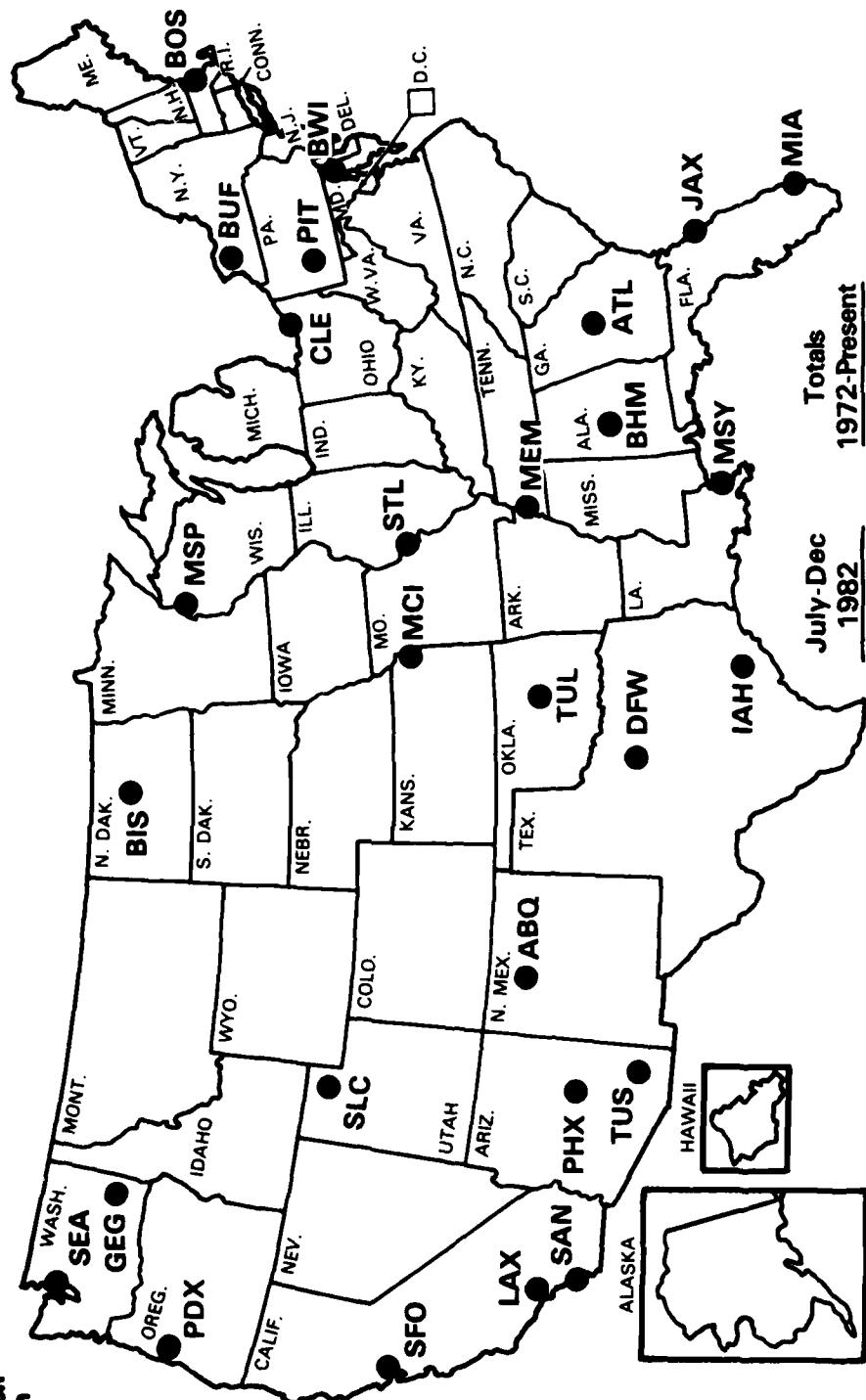
<sup>1/</sup> Effective September 1981 — includes all certificate holders as defined in Code of Federal Regulations Title 14, Part 108. The data is subject to fluctuations throughout the reporting period.

<sup>2/</sup> Estimated — accurate source documents not available.

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## FAA Sponsored Explosive Detection K9 Teams Locations and Utilization



	July-Dec 1982	Totals 1972-Present
Aircraft & Airport Searches	293	6770
Explosive Items Detected	2	50
Missions in Local Communities	205	6871
Explosive Items Detected	15	188
Total Explosive Items Detected	17	238

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## **Civil Aviation Security Research and Development Explosive Detection**

### **X-Ray Absorption**

- One Unit Sent to FAA Technical Center for Testing to Gather Additional Airport Data
- One Unit Operational Evaluation Completed June 1981 — Over 65,000 Baggage Articles Processed
- Operational Evaluation of Advanced Adaptive Threshold Algorithm Completed

### **Thermal Neutron Activation**

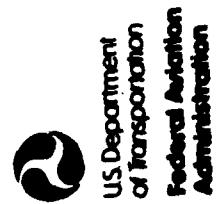
- Prototype Evaluated at Two Airports
- Data Analyzed Appears Promising for Air Cargo and Checked Baggage
- Research to Continue to Enhance Detection Capability
- Documentation and Data Package of Key Elements Being Developed

### **Nuclear Magnetic Resonance**

- Test at Dallas-Fort Worth Regional Airport Proved Successful
- Prototype Unit Completed
- Research and Development Evaluation January 1983

### **Walk by Explosive Detector**

- Laboratory Evaluation Completed
- Preparing Specifications for Explosive Vapor Detector



## ***Civil Aviation Security Foreign Technical Assistance***

<u>Countries Participating</u>	<u>Actions</u>	
	30	
● <b>FAA Technical Assistance Team Visits</b>		71
● <b>Aviation/Law Enforcement Officials Briefings</b>		
● <b>Training Programs:</b>	80 (356)	
– Aviation Security Course (Students)	62	
– Anti-hijacking Tactics	73	
– Ground Explosive Security	96	
– Inflight Explosive Security	38	
– Passenger Screening	6	
– In-Flight Safety (Halon)	21	
● <b>Analytical Studies Distribution</b>		

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## ***Civil Aviation Security Compliance and Enforcement Actions***

		1973	1976	1977	1978	1979	1980	1981	1982
<b>U.S. AIR CARRIERS</b>									
Warnings	599	276	266	283	154	465	164		
Letters of Correction	514	109	145	102	100	52	98		
Non Enforcement Actions	273	61	65	49	55	38	44		
Civil Penalties (Amount)	<u>241</u> (\$210,700)	<u>43</u> (\$66,700)	<u>30</u> (\$23,300)	<u>26</u> (\$18,075)	<u>48</u> (\$42,875)	<u>35</u> (\$72,547)	<u>28</u> (\$10,508)		
Investigations Closed	1,627	489	506	460	357	590	334		
Investigations Pending	61	48	80	112	115	91			
<b>FOREIGN AIR CARRIERS</b>									
Warnings	0	0	0	14	4	3	2		
Letters of Correction	12	11	11	6	4	0	2		
Non Enforcement Actions	5	2	3	3	15	1	2		
Civil Penalties (Amount)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u> (\$25,000)	<u>0</u>		
Investigations Closed	17	13	14	23	23	6	6		
Investigations Pending	2	12	15	5	2	2	4		
<b>AIRPORTS</b>									
Warnings Issued	266	137	168	80	83	63	59		
Letters of Correction	259	53	65	53	91	14	21		
Non Enforcement Actions	50	23	20	12	23	19	9		
Civil Penalties (Amount)	<u>50</u> (\$32,600)	<u>12</u> (\$3,500)	<u>11</u> (\$7,500)	<u>19</u> (\$15,150)	<u>13</u> (\$15,600)	<u>23</u> (\$21,675)	<u>8</u> (\$ 6,300)		
Investigations Closed	625	225	264	164	210	119	97		
Investigations Pending	23	29	69	48	25	18			
<b>INDIVIDUALS</b>									
Administrative Corrections	28	81	68	617	1,469	2,168	2,267		
Non Enforcement Actions	43	24	18	87	162	209	161		
Civil Penalties (Amount)	<u>2</u> (\$375)	<u>4</u> (\$2,050)	<u>9</u> (\$1,925)	<u>70</u> (\$11,300)	<u>155</u> (\$27,210)	<u>231</u> (\$49,410)	<u>114</u> (\$28,095)		
Investigations Closed	73	109	95	774	1,786	2,808	2,542		
Investigations Pending	14	45	392	475	398	483			

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EXHIBIT 18